

REMARKS

Claims 1-4, 6-14, and 16-19 are all the claims pending in the application, claims 5 and 15 having previously been cancelled. The Examiner rejects 1-3 and 11-13 under 35 U.S.C. §102(b) as being anticipated by Takano et al. (WO 02/065723). The Examiner also rejects claim 10 under 35 U.S.C. §103(a) as being unpatentable over Willenegger (US 6,996,069) in view of Takano. The Examiner also rejects claim 10 under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential structural connections. The Examiner objects to claims 4, 6-9, 14, and 16-19 as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicant amends claims 1, 10, and 11, and cancels claims 4 and 14.

112, Second Paragraph Rejection

Claim 10

The applicant amends claims 10 and respectfully traverses the Examiner's rejection under section 112, second paragraph. In his rejection, the Examiner makes two points; the first point is that the claim omits how the "symbol" element is formed, and the second point is that the claim omits the interrelationship of the elements "symbol" and "signal point" to the operations of the remaining claim elements. The applicant replies that how the "symbol" element is formed or generated is not germane to the operation of claim 10. In reality, the symbol is received or generated by the transmitter and is processed by the elements of the claim as recited by the claim.

The "symbol" element is interrelated with the remaining elements of the claim in that a TcCH multiplexer multiplexes radio frames into a CCTrCH, the DTX insertion module inserts DTX bits into the CCTrCH by mapping a symbol to one of two points on the IQ plane depending whether the symbol has at least one

DTX bit, a physical channel segmentation module segments the CCTrCH for different PhCHs, an interleaver for interleaving the segments, and a physical channel mapping module for mapping the segments to the corresponding PhCHs.

For at least these reasons, applicant believes claims 10 is patentable, and respectfully requests reconsideration and withdrawal of the rejections, and early allowance.

102(b) Rejections Tanako Reference

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See, MPEP 2131.

Claims 1 and 11

As amended, claim 1 is directed to a discontinuous transmission (DTX) bit processing method for a multirate modulation scheme comprising ... mapping the symbol to a predetermined mapping point (S) on an IQ plane when the symbol has no DTX bits, wherein the symbol is mapped to a signal point in which bits are identical with the bits consisting of the symbol on the IQ plane, and mapping the symbol to an origin of the IQ plane when at least one bit of the symbol is a DTX bit. Claim 11 recites similar language.

Independent claims 1 and 11 stand rejected under 35 U.S.C. §102(b) as being anticipated by Takano, however, the Examiner indicated that dependent claims 4 and 14 would be allowable over the cited prior art if rewritten in independent form including all the limitations of the base claim and any intervening claim.

Claims 4 and 14 previously recited the limitation of "wherein the symbol is mapped to an origin of the IQ plane, when at least one bit of the symbol is a DTX

bit." Applicant amends independent claims 1 and 11 to include elements which are similar to those previously recited in allowable claims 4 and 14 respectively, and believes that claims 1 and 11 are allowable because Takano does not teach or reasonably suggest all the limitations of claim 1 and 11 as amended.

For at least these reasons, applicant believes claims 1 and 11 are patentable. Additionally, claims 2-3, 6-9, 12-13, and 15-19 are patentable at least by virtue of their dependence upon their respective patentable independent claims. Applicant respectfully requests reconsideration and withdrawal of the rejections, and early allowance of the claims.

§ 103(a) Rejection

Willenegger and Takano References

Claim 10

Claims 10 stands rejected as being unpatentable over Willenegger in view of Takano. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, MPEP 2143.

The Examiner has stated that claims 4 and 14 would be allowable over the cited prior art if rewritten in independent form including all the limitations of the base claim and any intervening claim. Applicant amends claim 10 to include the limitation of claim 14. Takano and Willenegger, whether taken individually or in combination, do not teach all the limitations of claim 10 as amended, and the *prima facie* case for obviousness fails. Applicant respectfully requests reconsideration and withdrawal of the rejections, and early allowance of the claims.

CONCLUSION

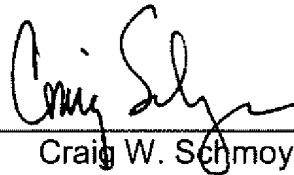
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain at issue which the Examiner feels may be best resolved through a telephone interview, the Examiner is kindly invited to contact the undersigned at (213) 623-2221.

Respectfully submitted,
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